
TITLE 326 AIR POLLUTION CONTROL BOARD

Final Rule

LSA Document #07-309(F)

DIGEST

Adds [326 IAC 6-7](#) (particulate matter emission limitations), amends [326 IAC 7-4-10](#) (sulfur dioxide emission limitations), and adds [326 IAC 10-6](#) (nitrogen oxides emission limitations) concerning F. B. Culley Generating Station in Newburgh, Indiana. Effective 30 days after filing with the Publisher.

HISTORY

First Notice: June 20, 2007, Indiana Register (DIN: [20070620-IR-326070309FNA](#)).
Second Notice: December 12, 2007, Indiana Register (DIN: [20071212-IR-326070309SNA](#)).
Notice of First Hearing: December 12, 2007, Indiana Register (DIN: [20071212-IR-326070309PHA](#)).
Date of First Hearing: March 5, 2008.
Proposed Rule: March 26, 2008, Indiana Register (DIN: [20080326-IR-326070309PRA](#)).
Notice of Second Hearing: March 26, 2008, Indiana Register (DIN: [20080326-IR-326070309PHA](#)).
Date of Second Hearing: May 7, 2008.

[326 IAC 6-7](#); [326 IAC 7-4-10](#); [326 IAC 10-6](#)

SECTION 1. [326 IAC 6-7](#) IS ADDED TO READ AS FOLLOWS:

Rule 7. Particulate Matter Emission Limitations for Southern Indiana Gas and Electric Company

[326 IAC 6-7-1](#) Southern Indiana Gas and Electric Company (SIGECO)

Authority: [IC 13-14-8](#); [IC 13-17-3](#)

Affected: [IC 13-15](#); [IC 13-17](#); [IC 13-22](#)

Sec. 1. The following particulate matter emission limitations apply to Southern Indiana Gas and Electric Company (SIGECO) Culley in Warrick County:

(1) For Unit 3, the following:

(A) Particulate matter (PM) emission limit of fifteen-thousandths (0.015) pound per million Btu (lbs/MMBtu).

(B) A baghouse shall be operated all times the unit is combusting coal.

(C) The PM emission rate shall be determined using reference methods specified in 40 CFR 60, Appendix A, Method 5*, using stack tests, or alternative methods that are requested by SIGECO and approved by the department and U.S. EPA. SIGECO shall calculate the PM emission rate from biennial stack tests in accordance with 40 CFR 60.8(f)*. The results of each PM stack test shall be submitted to U.S. EPA within forty-five (45) days of completion of each test.

(2) For Unit 2, an electrostatic precipitator (ESP) shall be operated at all times the unit is combusting coal.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Board; [326 IAC 6-7-1](#); filed Jul 31, 2008, 4:00 p.m.: [20080827-IR-326070309FRA](#))

SECTION 2. [326 IAC 7-4-10](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 7-4-10](#) Warrick County sulfur dioxide emission limitations

Authority: [IC 13-14-8](#); [IC 13-17-3](#)

Affected: [IC 13-15](#); [IC 13-17](#); [IC 13-22](#)

Sec. 10. (a) The following sources and facilities located in Warrick County shall comply with the sulfur dioxide emission limitations in pounds per million Btu, unless otherwise specified, and other requirements:

(1) Southern Indiana Gas and Electric Company (SIGECO)

Facility Description	Emission Limitations
(A) Culley Units 1, 2, and 3 Prior to December 31, 1989	6.0 each
Beginning December 31, 1989	5.41 each
Beginning August 1, 1991 (Units 1 and 2 only)	2.79 each
(B) As an alternative to the emission limitations specified in clause (A), beginning August 1, 1991, sulfur dioxide emissions from Culley Units 1 and 2 shall be limited in pounds per million Btu as follows:	

Facility Description	Emission Limitations
Unit 1	0.0006
Unit 2	4.40

(C) SIGECO shall notify the department and the U.S. EPA via certified mail at least fourteen (14) days prior to its intention to rely on the set of limits in clause (B) or to switch between sets of limits listed in clauses (A) ~~through and~~ (B).

(D) For the purposes of ~~326 IAC 7-2-1(c)(4)~~, **326 IAC 7-2-1(e)(1)**, during thirty (30) day periods in which SIGECO relies on more than one (1) set of limits contained in clauses (A) ~~through and~~ (B), a separate thirty (30) day rolling weighted average for each set of limits shall be determined. Each thirty (30) day rolling weighted average shall be based on data from the previous thirty (30) operational days within the last ninety (90) days for that set of limits. If SIGECO does not operate thirty (30) days under any one (1) set of limits within the last ninety (90) days, the rolling weighted average shall be based on all operational days within the last ninety (90) days for that set of limits.

(E) Units 2 and 3 shall maintain a thirty (30) day rolling average sulfur dioxide (SO₂) removal efficiency of at least ninety-five percent (95%) using continuous emissions monitoring system (CEMS) data from both the inlet and outlet of the control device determined in accordance with 40 CFR 75*. A thirty (30) day rolling average sulfur dioxide (SO₂) removal efficiency means the percent reduction in the mass of a pollutant achieved by a unit's pollution control device over a thirty (30) day period using the thirty (30) day rolling average emission rate. A thirty (30) day rolling average emission rate shall be determined by calculating an arithmetic average of all hourly emission rates in lb/MMBtu for the current day and the previous twenty-nine (29) operating days. A new thirty (30) day rolling average emission rate shall be calculated for each new operating day. Each thirty (30) day rolling average emission rate shall include all startup, shutdown, and malfunction periods within an operating day.

(F) SIGECO shall continuously operate the flue gas desulfurization system (FGD) serving Units 2 and 3 at all times the units are in operation. Following startup of the units, SIGECO need not operate the FGD until either unit is fired with any coal. In the event of a planned FGD outage, SIGECO may continue to operate Unit 2, but shall burn down the coal existing in the Unit 2 bunker to the extent practicable, and, prior to shutting down the FGD, load compliance coal into the bunker for use until such time as the FGD resumes operation. In the event of an unplanned FGD outage, SIGECO shall feed compliance coal to the Unit 2 bunker until such time as the FGD resumes operation.

Compliance coal is defined as two (2.0) lb/MMBtu SO₂, as demonstrated by a four (4) hour composite sample of the feed stock.

(2) Aluminum Company of America (ALCOA) Warrick Power Plant

Facility Description	Emission Limitations
Units 1, 2, 3, and 4 Prior to December 31, 1989	6.0 each
Beginning December 31, 1989	5.41 each
Beginning August 1, 1991	5.11 each

Unit 4 is jointly owned by ALCOA and SIGECO.

~~(3) ALCOA Warrick Power Plant and SIGECO Culley Plant~~

~~(A) As an alternative to the emission limitations specified in subdivisions (1) through (2) and upon fulfilling the requirements of clause (B), sulfur dioxide emissions from the Warrick and Culley Plants shall be limited to one (1) of the sets of limitations in pounds per million Btu specified as follows:~~

Source	Facility Description	Emission Limitations
(i) Warrick Plant SIGECO Culley	Units 1-4	5.4 per stack
	Unit 1	2.0
	Unit 2	2.0

	Unit 3	5.4
(ii) Warrick Plant SIGECO Culley	Units 1-4	5.4 per stack
	Unit 1	0.0006
	Unit 2	3.2
	Unit 3	5.4
(iii) Warrick Plant SIGECO Culley	Units 1-4	5.4 per stack
	Unit 1	5.4
	Unit 2	0.0006
	Unit 3	5.4

(B) SIGECO and ALCOA shall jointly provide notification via certified mail to the department and to the U.S. EPA prior to December 1, 1989, of their intention to begin permanent reliance on one (1) of the sets of limitations specified in clause (A). The written notification shall contain written evidence of a notarized agreement between SIGECO and ALCOA concerning the applicable set of limitations. Beginning December 31, 1989, sulfur dioxide emissions from each unit shall be limited to five and four tenths (5.4) pounds per million Btu. Beginning August 1, 1991, SIGECO shall achieve compliance with the applicable emission limitation for each unit with a final emission limitation of three and two tenths (3.2) pounds per million Btu or less.

(4) (3) ALCOA-Warrick Smelter Operations shall comply with the sulfur dioxide emission limitations in pounds per hour, unless otherwise specified, and other requirements as follows:

Facility Description	Emission Limitations
(A) Potline 1:	
All stacks associated with scrubber	176.3
Roof monitors associated with Potline 1	19.6
(B) Potline 2:	
All stacks associated with scrubber	195.2
Roof monitors associated with Potline 2	21.7
(C) Potline 3:	
All vents or stacks associated with scrubber	195.2
Roof monitors associated with Potline 3	21.7
(D) Potline 4:	
All vents associated with scrubber	195.2
Roof monitors associated with Potline 4	21.7
(E) Potline 5:	
All stacks associated with scrubber	195.2
Roof monitors associated with Potline 5	21.7
(F) Potline 6:	
All stacks associated with scrubber	195.2
Roof monitors associated with Potline 6	21.7
(G) Potlines 1, 2, 3, 4, 5, and 6	5,608 tons per year total
(H) Anode Bake Ring Furnace	94.1
	(412 tons per year)

Any sulfur dioxide emission limitation established in a permit issued in conformance with the prevention of significant deterioration rules under [326 IAC 2-2](#) or 40 CFR 52*, if more stringent, shall supersede the requirements in this subdivision.

(b) Compliance with the pounds per hour limitations specified in subsection (a)(4) shall be based on a stack test pursuant to [326 IAC 7-2-1\(b\)](#) under [326 IAC 7-2-1\(d\)](#).

(c) Compliance with the tons per year limitations specified in subsection (a)(4) shall be based on a rolling twelve (12) consecutive month emission total. Monthly sulfur dioxide emissions shall be determined from calendar month material balances using actual average sulfur content and material throughput. Quarterly reports shall be submitted to the department containing the calendar month and rolling twelve (12) month sulfur dioxide emissions from the smelter operations (potline scrubber stacks, roof monitors, and anode bake ring furnace). The report shall:

(1) include documentation of the data and methodology used to calculate the monthly sulfur dioxide emissions; and shall

(2) be submitted by the end of the month following the end of the quarter.

~~*This document is~~ ***These documents are** incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Board; [326 IAC 7-4-10](#); filed Aug 28, 1990, 4:50 p.m.: 14 IR 75; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Aug 26, 2004, 11:30 a.m.: 28 IR 43; filed Jul 31, 2008, 4:00 p.m.: [20080827-IR-326070309FRA](#))

SECTION 3. [326 IAC 10-6](#) IS ADDED TO READ AS FOLLOWS:

Rule 6. Nitrogen Oxides Emission Limitations for Southern Indiana Gas and Electric Company

[326 IAC 10-6-1](#) Southern Indiana Gas and Electric Company (SIGECO)

Authority: [IC 13-14-8](#); [IC 13-17-3](#)

Affected: [IC 13-15](#); [IC 13-17](#); [IC 13-22](#)

Sec. 1. The following nitrogen oxides emission limitations apply to Southern Gas and Electric Company (SIGECO) Culley Unit 3 in Warrick County:

(1) Nitrogen oxides (NO_x) emission limit of one hundred-thousandths (0.100) pound per million Btu (lbs/MMBtu) on a thirty (30) day rolling average emission rate.

(2) Selective catalytic reduction technology (SCR) shall be operated at all times the unit is in operation consistent with the technological limitations, manufacturers' specifications, and good operating practices for the SCR.

(3) Emission rates for NO_x shall be determined using a continuous emissions monitoring system (CEMS) in accordance with reference methods specified in 40 CFR 75*. A thirty (30) day rolling average emission rate shall be determined by calculating an arithmetic average of all hourly emission rates in lb/MMBtu for the current day and the previous twenty-nine (29) operating days. A new thirty (30) day rolling average emission rate shall be calculated for each new operating day. Each thirty (30) day rolling average emission rate shall include all startup, shutdown, and malfunction periods within an operating day.

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(Air Pollution Control Board; [326 IAC 10-6-1](#); filed Jul 31, 2008, 4:00 p.m.: [20080827-IR-326070309FRA](#))

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